

Reflections on Chambers' Odyssey

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Abstract

This is a series of critical reflections on the contribution of Raymond J. Chambers to accounting thought, education and practice. It was stimulated by the recent publication of *Accounting Thought and Practice Reform: Ray Chambers' Odyssey*, by Frank Clarke, Graeme Dean and Martin Persson, and draws extensively on the material presented in that book. It represents the author's personal reflections on the material in *The Odyssey* rather than a comprehensive survey of the extensive literature surrounding Chambers' work.

Keywords

accounting, Chambers, CoCoA, Sydney

The book

The book (Clarke et al., 2019) is a biographical tribute to Ray Chambers, the founder of the Sydney School of Accounting. Two of the authors (Clarke and Dean) were pupils and close academic colleagues of Chambers and the third, Persson, wrote his doctoral thesis on Chambers' work. They can therefore write authoritatively about their subject and have supplemented their collective expertise with some fascinating evidence from the Chambers Archive, which is presented in some detail, enabling the critical reader to make an independent assessment of this great controversialist's work and the evolution of his ideas. However, they start with a predisposition in favour of Chambers and his theoretical framework, so that the book is best described as a tribute rather than a critical biography: a case for the defence, but well supported by evidence. The authors' predisposition is perhaps reflected in the subtitle, 'Ray Chambers' Odyssey'.¹ The present article presents an assessment by a critical, but not hostile, reader.

Chambers' lifetime output was prolific. Apart from several books, including his 1966 classic, *Accounting, Evaluation and Economic Behavior* and his later *Accounting Thesaurus* (1995, a remarkable statement of his extensive scholarship), he published many shorter works, collected in six volumes of collected papers, as well as unpublished work, including correspondence with other scholars and with professional and regulatory bodies concerned with accounting and accounting education. The latter are available in the Chambers Archive and are quoted extensively in the book (hereinafter referred to as *The Odyssey*). The amount of material available to the authors must have

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been daunting, and they have done well to produce a concise and readable text of nine chapters and less than 300 pages. In places, the exposition of Chambers' ideas is terse and difficult to follow without recourse to the original, but this is inevitable given the sheer volume and variety of the original work. Each chapter focuses on an aspect of Chambers' life and work (Growing Up, Chambers the Man, Historian, Archivist, Management Educator, Theoretician, Practitioner, Reformer and Unfinished Business), adding valuable structure to what might otherwise have been an overwhelming volume of material. What emerges from this is a fascinating account of Chambers' character, how it was formed, and how it was reflected in his work and in his attempts to persuade others to accept his ideas.

The man and his work

Ray Chambers (1917–1999) was undoubtedly one of the most important accounting theorists of the twentieth century and one of the stars of the 'golden age' of accounting theory. He is most notably remembered for his 1966 book, *Accounting, Evaluation and Economic Behavior*, which was an ambitious attempt to derive a comprehensive financial accounting theory from basic premises which Chambers believed to conform with his observation of how accounting entities and markets operated. He believed that financial accounts should serve the overall objective of decision usefulness, and that this would be best achieved by reporting financial flexibility, as represented by the economic opportunities currently available to the reporting entity. His theory was described as Continuously Contemporary Accounting (CoCoA). Its central prescription was that the economic opportunities shown in financial accounts should be those available in the present rather than the past or the future. Hence, the measurement of assets should be current cash equivalents based on current prices (representing present opportunities) rather than historical cost (representing past opportunities) or discounted present values of future returns (representing expected future opportunities). He selected selling price rather than buying price as the appropriate current measure of assets, on the ground that sale price represented an important current economic opportunity: convertibility to cash, which, in turn, was a measure of economic flexibility. This drew him into some fierce disputations with supporters of replacement cost, such as his Australian contemporaries Mathews and Gynther.²

Hence, Chambers might be regarded as an early advocate of Fair Value, a current selling price measure which has achieved an important place in contemporary accounting standards. However, as *The Odyssey* records, Chambers himself would have rejected this view: he was strongly opposed to measures that anticipated the future, and Fair Value, particularly in its Level 3 form,³ uses discounted present values of the future cash flows expected from continued use as a measure of current value, in the absence of market prices. Nevertheless, as one of the relatively few advocates of what Edwards and Bell (1961) described as 'exit price', Chambers is regarded by some advocates of Fair Value as one of its progenitors.⁴ He also shared with them a tendency to emphasise the balance sheet rather than the profit and loss account as the most informative statement: the concept of financial flexibility, as he developed it, was concerned with the aggregate cash equivalent of the entity's net assets at a point in time (balance sheet date) rather than with cash flows over time (associated with flows reported in the profit and loss account).

He was also a strong supporter of the view that accounts should be adjusted by general price indices, to remove the distortions introduced by inflation, which was pervasive for much of his career. This too brought him into conflict with Gynther and other advocates of replacement cost who believed that all price change adjustments should be based on specific rather than general indices and that the capital maintenance concept, defining the amount of capital to be maintained before recognising a profit, should represent physical capital (specific assets held by the entity)

rather than financial capital (a sum of real purchasing power, represented by the monetary value of opening capital adjusted by subsequent changes in a general purchasing power index).⁵ Chambers loved a debate: it was a way of testing and developing his ideas. However, he also liked to win a debate, as did Gynther. Hence, the debate between Gynther and Chambers on price change accounting ended in unproductive acrimony, with Chambers asserting that Gynther's view was 'an intellectual scandal', a description to which Gynther took great exception. The authors of *The Odyssey* excuse Chambers' extreme language on this occasion by attributing it to as passionate belief in his model rather than to him 'playing the man rather than the ball'. Gynther thought otherwise.

It is apparent that Chambers did have a passionate belief in his CoCoA model, having developed it by a relentless process of hard work over many years of painstaking study and debate, during which his ideas changed radically. Chambers was always critical of historical cost, which failed to meet his objective of achieving decision usefulness, but his alternative emerged in stages as he tried to develop a comprehensive general theory of financial reporting, derived logically from fundamental axioms. At first, he favoured replacement cost (Chambers, 1955), but eventually he rejected this on the ground that it assumed replacement, a future decision, whereas his preferred selling price allowed for financial adaptability (a present opportunity not constrained to future replacement) by reporting current cash equivalents. However, he acknowledged some difficulties with his preferred solution and CoCoA continued to evolve after 1966.

A notable landmark was his 'Second Thoughts' paper (Chambers, 1970), in which he responded to his critics and made some consequential amendments to his system. An important change was to delete replacement cost as a proxy measure where a market price was not available (as in the case of some partially completed work-in-progress) and instead attribute a zero measure to the asset. This showed, on one hand, that, despite his sometimes-belligerent responses to critics, he could adapt to criticism which he believed to be justified. On the other hand, it showed a strict adherence to his principles which some might view as narrow: his substitute for replacement cost, applying a zero measure, avoided the danger of adding heterogeneous measures (replacement cost and sale price) but at the cost of providing no value information about the item on the face of the balance sheet! His treatment of liabilities was equally strict and contentious: he insisted that they should be recorded at face value (the amount due to be paid on redemption), thus ignoring any discounts due to own credit risk (which is still a contentious issue for standard-setters) or to the time value of money (the discounting of future repayments by application of an interest charge to reflect their present value).

As his CoCoA system evolved, he made increasing attempts to persuade regulators and standard-setters to implement it, but he saw these attempts as a failure. An example of this was his membership of the Australian Accounting Standards Board, described in Chambers' own words (quoted in *The Odyssey*, p. 196) as follows:

It seems to me that the ferment has exhausted itself and that the profession – practising and academic alike – has reconciled itself to a libation of flat, stale dregs. After years of working on the sidelines, I was at last (1982) invited to spend a term on the local (Australian) Standards Board. Eight months of striving to accustom myself to endorsing or seeing others endorse questionable or baseless contentions, I gave it up. (Letter to Steve Zeff, June 1986)

This outcome was hardly surprising, in view of Chambers' trenchant scepticism of committees:

A committee is unable, by its nature, freely to engage and disengage from its immediate attention [on] particular clusters of ideas in the search for a worthwhile conclusion . . . [This] requires the concentration of one mind. But a committee has not one mind. It has many minds. At any stage in the deliberations of a

committee, each member will have different sets of ideas at the back of his mind, waiting to be drawn upon, and each will tend to value those ideas differently from other members. Debate follows. Sharp lines are drawn, lines which prevent the free association of ideas and lead to premature commitment. Committees are impatient with involved argument. They tend to brush aside evidence . . . They tend to seek verbal consensus rather than understanding and to value convergence of opinion rather than the convergence of evidence. (Chambers in 1972, quoted in *The Odyssey*, p. 56)

This revealing statement explains Chambers' disaffection with the typical real-world standard-setting process, which is based on debate and compromise between stakeholders. Such processes (as, for example, embodied in the International Accounting Standards Board's (IASB) due process) are intended to give standards legitimacy within their constituency. Chambers appears to have believed that logic ('involved argument') applied to assumptions based on 'evidence' should be enough to derive a unique set of good standards. This idea is implicit in some of the arguments for having a conceptual framework, although in practice the IASB's Framework has been the subject of much debate and compromise, both in its development and in its application (Whittington, 2008). However, Chambers was impatient of compromise, so that it is not surprising that his skirmishes with standard-setting were a disappointment to him.

His many other efforts to disseminate his ideas in the world of practice also only met with limited success, by Chambers' ambitious standards, although his work was widely known and was not neglected to a greater extent than that of other academics of the period, such as Edwards and Bell (1961). The international debate on inflation accounting (Tweedie and Whittington, 1984), to which Chambers' CoCoA system was particularly relevant, was a central concern of accounting standard-setters from the 1960s to the 1980s. The work of academics was referred to but not discussed deeply, and the course of the debate was determined by historical events (notably by rates of inflation and government policy changes) rather than the sort of debate that Chambers would have preferred (especially if he had won!).

Chambers also felt that other academics failed to appreciate his ideas. He assembled a strong school of accounting in Sydney, whose members gave him support and disseminated his ideas. He also founded (in 1965) *Abacus*, an academic journal based in Sydney which provided a vehicle for him and his followers but which always maintained a liberal and eclectic outlook, so that it has become a truly international journal and one of the few that still includes deductive accounting theory in its portfolio of interests. He had many students at undergraduate and graduate levels, several of whom subsequently occupied chairs of accounting in Sydney and elsewhere, including George Foster, who subsequently gained distinction at Stanford and is quoted in *The Odyssey* as being grateful for Chambers' advice that he go to the United States for graduate studies. However, Foster was then trained in the new empirical methods and did not add to the further development of CoCoA: his experience was similar to that of many other young Australian graduates, such as Ray Ball and Philip Brown, who pursued graduate studies in the United States and became leaders of the empirical revolution in accounting research. The 1968 paper by Ball and Brown is generally regarded as a watershed in accounting research, and it is notable that the first footnote in that paper makes multiple references to Chambers' work. Chambers developed an international network of correspondents, including Robert Sterling, who became (following the publication of Sterling, 1970) the leading North American advocate of exit value accounting. Not all of his students or correspondents may have agreed with his theories, but all must have been challenged and influenced by them, and by Chambers' research methodology, which involved rigorous logical standards and meticulous research of the empirical facts assumed by theories.

Most scholars of the time would have been happy with these achievements, but Chambers, ever ambitious and a perfectionist, had a sense of failure because the academic world, like the professional

world, had not been persuaded to adopt CoCoA as its standard model. This perceived lack of success in disseminating his ideas was due partly to his uncompromising attitude, based upon his belief that there was only one 'best' solution, which happened to be his:

... how many accountants in the universities have a commitment to any line of thought in their field? There is so much 'on the one hand this, on the other that, or on the other something else', that they remind me of those many-handed eastern deities. If academic work has become no more than airing alternatives without any respect for what is best, if it has reached the low point of undisciplined chatter, if it is careless of choosing and standing up for what one can firmly establish, I see little prospect of 'satisfying achievement and distinction'. (Chambers, Letter of 1975, quoted in *The Odyssey*, p. 116)

Since these words were written, Chambers' work has gone even further out of fashion in the academic world, but this has been due to a general change in methodology rather than of a specific reaction to Chambers' work. We shall return later to the historical context of Chambers' work, which led to his style of enquiry, and that of other 'normative'⁶ theorists, going out of fashion in academia much more quickly than might have been expected. Before considering this, we shall consider Chambers' early experiences, as recounted in *The Odyssey*, which served to shape his character and outlook.

Formative experiences

Chambers' parents were both the children of coal miners who had emigrated from the United Kingdom to settle in the industrial town of Newcastle, where he spent his early years. His father, having no formal qualifications, started work as a labourer but had the ambition and industry to start a small business, although his business enterprises were not entirely successful (not helped by the recession which followed the Wall Street crash of 1929) and required the assistance of young Ray in various menial tasks, such as acting as a delivery boy, to the detriment of his academic studies. However, his father's ambition and hard work must have provided a role model, and his struggles to keep the business afloat may have made young Ray aware of the importance of accounting information, particularly of measuring liquidity which, many years later, was a central concern of the CoCoA system. The grammar school in Newcastle provided intellectual stimulus and fuelled young Ray's natural curiosity, so that he became a voracious reader with broad interests, a habit which he maintained for the rest of his life. His ambition on leaving school was to become a teacher, but his family did not have enough resources to pay for the full-time residential training that this would entail. However, in his case, 'the child was certainly father to the man' and he would eventually become an exceptional teacher and probably a much more successful one than if he had become a schoolteacher.

Thus, on leaving school, he moved to Sydney as a clerk in the State Justice Department. This was secure employment but offered little intellectual stimulation or prospect of advancement. These were obtained instead by part-time enrolment at the University of Sydney, funded by a scholarship, which led to an honours degree in Economics, with two subsidiary papers in accounting. Following graduation, he worked as a stock controller for Shell Oil in Sydney and then as a financial controller for an electrical manufacturing company. He then had what was possibly his definitive work experience as a case officer for the Price Commission: this brought economics and accounting together, with accounting providing the evidence for economic decisions. He continued to study in the evenings and qualified as a member of the Australian Society of Accountants. His enquiring mind and love of teaching drew him into academe, first, in 1945, as a part-time lecturer at Sydney Technical College and then, in 1953, to the only full-time post in accounting at the University of Sydney (a

Senior Lectureship in the Economics Department), where he stayed for the rest of his life, building a large and successful Department of Accounting (now separate from the Economics Department). Although he remained in Sydney, he travelled the world, particularly the English-speaking world which shared a common (or at least similar) accounting culture, notably in his 1959 sabbatical year in which he made significant contacts in North America and the United Kingdom. He nurtured these contacts through correspondence and was thus able to react with and influence leaders of accounting thought such as Maurice Moonitz in the United States. He accordingly became a self-made international figure in the field: self-made because he actively created the circumstances which made him an international figure.

This brief biographical sketch contains many clues as to Chambers' character and motivation. The habit of hard work was formed early when he combined the roles of schoolboy and delivery boy. This was reinforced by years of combining employment with study for his degree and professional qualification. His family circumstances encouraged his ambition to better himself economically and his voracious appetite for reading and study beyond the confines of his professional work was encouraged by his school and sustained later by his natural curiosity. His career was sustained by these essential characteristics of curiosity and hard work (supported by an ample quantity of natural ability) which made him what is sometimes described as 'a self-made man'.

His background also placed him, in his own words, 'on the Fringe' (Chambers, 2000), in the sense that he always felt he was an outsider in both the professional and academic worlds. He did not come from a privileged background and did not feel that he belonged to the Establishment, having worked his way to eminence. His accounting training was in industry and the public sector rather than in a professional audit firm. This made him aware of the importance of accounting for decision making rather than stewardship, a different perspective from that of the audit firms who dominated the Accounting Establishment. As an academic, he did not feel that the accounting profession paid enough respect to education and research, and he also had a long (and successful) struggle within the academic world to achieve the acceptance of accounting as a serious academic discipline.

This sense of being an outsider, on the Fringe, must have contributed to Chambers' fierce advocacy of his ideas: he hoped to persuade his opponents by force of logic and evidence, rather than kind words and compromise. Sometimes, he appeared not to understand what a fierce opponent he could be when viewed from the other side of the debate (as in the case of his exchange with Gynther), and his style may have polarised the position of his opponents rather than persuading them. As the authors of *The Odyssey* admit, 'Chambers could also be acerbic, both in written and verbal debates' (*The Odyssey*, p. xxv). He also appeared to take great pleasure in debate as a contest in which victory was important and conceding to opponents was defeat. However, his intentions were honourable; he was passionate to pursue the truth as he saw it. Debate was his natural means of exploring and testing ideas.

Achievement and limitations: the end of the 'Golden Age'

It is tempting to suggest that this uncompromising outsider stance inhibited the acceptance of Chambers' ideas. However, he was able to disseminate his ideas widely and he did achieve high standing in the eyes of both the profession (as testified by the activities summarised in *The Odyssey*) and the academic world, for example, building up the Sydney University Accounting group from a single full-time member to a large and internationally respected department, founding *Abacus*, and being admitted to the Ohio State University's Accounting Hall of Fame and the Australian Accounting Hall of Fame at the University of Melbourne.

Moreover, others who perhaps presented their ideas in a more emollient way (such as Edwards and Bell, 1961) achieved similarly limited success during this period, despite the obvious merit of their

work. This is not to say that they, and Chambers, did not provide insights into the properties of the accounting systems that they developed. The difficulty was that deductive accounting theory of the type that was fashionable in the 1960s, of which Chambers (1966) was an exemplar, was not capable of demonstrating that a specific accounting system was uniquely capable of meeting the needs of users. This was because deductive theory relies on the appropriateness of its assumptions about users and their needs, and accounting has heterogeneous users and uses, so that the relevant assumptions will vary and may even be contradictory. Even the assumed objectives of accounting, such as decision usefulness (which decision is being made and who is the decision maker), lack the precision necessary to produce a unique 'correct' solution to accounting problems. Yet 'correct' solutions applicable to all situations were what standard-setters craved and when they needed them most, in the inflation accounting crisis of the 1970s and 1980s, they failed to find them in the work of contemporary accounting theorists. Instead, they found many alternatives, most of them difficult to understand and of unproven practicality, and there were strong differences of opinion between academics about their relative merits, as in the debate between Chambers and Mathews and Gynther. Thus, the aspirations of policy makers were unrealistic, but academics, including Chambers, encouraged them by advocating their own preferred models to the exclusion of others rather than complementary to them. This situation led Watts and Zimmerman (1979) to characterise deductive theorists,⁷ like Chambers, as serving 'the market for excuses', that is, a theory could be found to support ('excuse') almost any accounting practice, so that preparers of accounts could choose methods that supported their own self-interest, confident in the knowledge that they would have some theoretical support. Watts and Zimmerman's proposed alternative to deductive theoretical research was empirical research, which was becoming increasingly popular due to the availability of computer databases, statistical packages and the training of graduate students in financial econometrics. Their specific proposal was 'Positive Accounting Theory' which focussed on explaining the choice of accounting method in terms of its effect on the economic benefits of the person making the choice. This type of research has flourished in recent years, and it is of potential use to policy makers in understanding their environment, but it is limited in scope⁸ and should be regarded as complementary to, rather than a substitute for, deductive theory, which is still used extensively by standard-setters, for example, in establishing the consistency of accounting standards with the conceptual framework.⁹

A more telling critique of Chambers and other deductive theorists came from the information perspective. This is summarised in Beaver's monograph of 1981,¹⁰ which has the appropriate subtitle 'An Accounting Revolution'. The nature of the revolution is to recognise that, in a world of imperfect and incomplete markets, economic concepts of income and net present value of the entity are not well defined, so that the accountant cannot hope to provide objective measures of them. In this situation, it is the responsibility of users of the accounts (or their agents, such as investment analysts) to make their own assessments of these global decision variables, using information provided in the accounts, which is necessarily incomplete and will be supplemented by non-accounting information, such as economic forecasts and supplementary accounting disclosures. The accountant's task is not to value the entity but to provide information that is useful to users of accounts in doing so.

The informational perspective, like the positive theory, gives a role to empirical research, as a means of testing the consequences of alternative accounting methods, and there has been much research of this type, an early example being Beaver and Landsman's (1983) pioneering study of the information content of the Financial Accounting Standards Board's Statement 33 disclosures (on changing prices and inflation). However, these new approaches to accounting research do not rule out the logical analysis of accounting methods, which provides the material with which the empirical researcher works, and there is a strong element of fashion in the current dominance of empirical research and relative neglect of deductive theory, as exemplified by Chambers.

It should also be noted that Chambers regarded himself as an empiricist. He was a keen student of markets and institutions and used this knowledge in framing the assumptions upon which his theories were based, although he did not do the post-Ball and Brown type of empirical research that tested the economic properties of accounting information, and he expressed reservations about the reliability of market-based research. Statistical testing did not feature in his work, and, from the perspective of the next generation, his methodology was 'old fashioned'. In particular, his empirical evidence took the form of specific examples or case studies, which were seen as more appropriate for *developing* hypotheses than for *testing* their predictions. The latter would require large random samples, to meet the needs of the statistical methodology used by the new generation of empirical researchers (Anderson and Leftwich, 1974). As is usual in intergenerational differences, both sides of the argument had some merit and it is a pity that there was not more acknowledgement of the complementarity of the different approaches.

One of the errors of the new generation was to pigeonhole Chambers as an adherent of the 'economic income' school (Beaver, 1981: 4.). He may have been at fault in giving this impression in his strenuous defence of CoCoA as the best model for financial reporting, but his underlying argument was much more nuanced. In the first place, he did not place much emphasis on the income statement, regarding the balance sheet as the fundamental statement.¹¹ The balance sheet equivalent of economic income is net present value, and he never claimed that this was measured by CoCoA. Rather, CoCoA was intended to capture the concept of financial flexibility and Chambers recognised that users would require supplementary information: CoCoA valuations would not sum to net present value of the firm's equity and additional information would be required. For example, Chambers favoured the dual account system, in which infrastructure assets qualifying as non-vendible durables (not available for sale and therefore having no reliable current selling price) would be accounted for separately and measured at historical cost (less depletion allowances).

Summing up

Looking back at Chambers' work, there is much to admire: he took part in an international exchange that promoted a more systematic or, as he would describe it, 'scientific' approach to accounting theory, based upon the concept of decision usefulness. This was much wider than CoCoA and his endeavours included contributions to the development of accounting education and interaction with professional and regulatory bodies. However, he became closely associated with CoCoA, and this was largely at his own instigation. Even the misunderstandings of it were largely due to his combative style and insistence that his system trumped all others. Thus, he failed to develop a common cause with those who were potential allies on important issues, such as Mathews and Gynther, who both supported the substitution of current prices for historical cost as the fundamental measurement method in accounting but preferred current replacement costs to current sale prices. However, the change in the orientation of accounting research away from all-embracing deductive theories was probably inevitable, as was the development of empirical testing,¹² although it can be argued that the dominance of the latter is in danger of stifling theoretical work entirely, thus limiting the overall contribution of research to our fundamental understanding of accounting systems.

Theoretical work and its application are still carried out in the world of accounting standard-setting and regulation. For example, the IASB has recently issued its revised Conceptual Framework, which has a direct lineage to Moonitz and, through him, to Chambers, whose correspondence is recorded in *The Odyssey*. Innovations in business and financial markets continue to generate new types of business transactions and new financial instruments, and these developments are likely to sustain the demand for analytical accounting theory to assist practitioners and regulators in devising appropriate accounting methods. This may encourage a revival of accounting theory research. If the

revival occurs, Chambers should be recognised as one of the outstanding pioneers of accounting theory on whose work future scholars will build. This will include learning the context in which the ideas which we have inherited were developed: this is essential for understanding their relevance to the present and future. The Chambers Archive is a rich source for such studies, and we should be grateful to the authors of *The Odyssey* for reminding us of this.

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Notes

1. The present author also read and commented on a pre-publication draft of the book discussed in the article but did this in the role of an independent commentator.
2. This debate is discussed further in Whittington and Zeff (2001).
3. Level 3 is a method of assessing Fair Value when direct market evidence is unavailable, defined in the current International Accounting Standards Board standard (IASB, 2011) on Fair Value Measurement.
4. The other accounting theorist who was identified with exit price accounting was the American academic Robert R. Sterling, with whom, as *The Odyssey* records, Chambers had a constructive relationship.
5. Capital maintenance concepts are defined and illustrated in Whittington (2017, Chapter 6).
6. The term 'normative' is that used by Watts and Zimmerman (1979), in their controversial and much-cited attack on deductive theory as supplying 'the market for excuses'. See endnote 7 below.
7. Watts and Zimmerman referred to deductive theorists as 'normative'. This is inappropriate because deductive theories do not necessarily have normative implications. Equally, empirical research, which Watts and Zimmerman characterise as 'positive', may have normative implications, as when standard-setting bodies use follow-up studies to evaluate the consequences of their standards.
8. 'The objective of accounting theory is to *explain* and *predict* accounting practice' (Watts and Zimmerman, 1986: 2). Thus, 'positive' theory does not include theoretical analysis of the properties of an accounting practice. Whittington (1987) provides a critique of 'positive' theory.
9. Howieson (2019) explores the development of empirical research since the publication of Ball and Brown (1968).
10. Beaver and Demski (1979) provide a clear analysis of income measurement from the informational perspective.
11. When his 'Second Thoughts' paper was reprinted in Parker et al. (1986), he felt that the original did not have enough material to be included in a volume on income measurement, so he wrote an Addendum on the subject.
12. Howieson (2019) investigates the factors underlying this methodology change, using evidence from a literature survey and an interview survey of participants in the research process.

References

- Anderson D and Leftwich R (1974) Securities and obscurities: A case for reform of the law of company accounts. *Journal of Accounting Research* 12(2): 330–340.
- Ball R and Brown P (1968) An empirical evaluation of accounting income numbers. *Journal of Accounting Research* 6(2): 159–178.
- Beaver W (1981) *Financial Reporting: An Accounting Revolution*. Englewood Cliffs, NJ: Prentice Hall.
- Beaver W and Demski J (1979) The nature of income measurement. *The Accounting Review* 54: 38–46.
- Beaver W and Landsman W (1983) Incremental information content of statement 33 disclosures. *Research report, Financial Accounting Standards Board*, Stamford, CT, July.

- Chambers RJ (1955) Blueprint for a theory of accounting. *Accounting Research* 6(1): 17–25.
- Chambers RJ (1966) *Accounting, Evaluation and Economic Behavior*. Englewood Cliffs, NJ: Prentice Hall.
- Chambers RJ (1970) Second thoughts on Continuously Contemporary Accounting. *Abacus* 6: 39–55.
- Chambers RJ (1995) *An Accounting Thesaurus: 500 Years of Accounting*. Oxford: Pergamon.
- Chambers RJ (2000) Life on the fringe – An accounting Odyssey. *Abacus* 36(3): 321–326.
- Clarke F, Dean G and Persson M (2019) *Accounting Thought and Practice Reform, Ray Chambers' Odyssey*. New York; London: Routledge.
- Edwards EO and Bell PW (1961) *The Theory and Measurement of Business Income*. Berkeley, CA: University of California Press.
- Howieson B (2019) Frankenstein's monster or the birth of Venus? Perceptions of the impact and contributions of Ball and Brown 1968. *Pacific-Basin Finance Journal* 55(June): 299–328.
- IASB (2011) *International Accounting Standard 13: Fair Value Measurement*. London: International Accounting Standards Board.
- Parker R, Harcourt G and Whittington G (eds) (1986) *Readings in the Concept and Measurement of Income*. 2nd ed. Oxford: Philip Allan.
- Sterling R (1970) *Theory of the Measurement of Enterprise Income*. Lawrence, KS: University Press of Kansas.
- Tweedie D and Whittington G (1984) *The Debate on Inflation Accounting*. Cambridge: Cambridge University Press.
- Watts R and Zimmerman J (1979) The demand for and supply of accounting theories: The market for excuses. *The Accounting Review* 54(2): 273–305.
- Watts R and Zimmerman J (1986) *Positive Accounting Theory*. Englewood Cliffs, NJ: Prentice Hall.
- Whittington G (1987) Positive accounting: A review article. *Accounting and Business Research* 17(68): 327–336.
- Whittington G (2008) Fair value and the IASB Conceptual Framework: An alternative view. *Abacus* 44(2): 139–168.
- Whittington G (2017) *Value and Profit: An Introduction to Measurement in Financial Reporting*. Cambridge: Cambridge University Press.
- Whittington G and Zeff SA (2001) Mathews, Gynther and Chambers: Three pioneering Australian theorists. *Accounting and Business Research* 31(4): 203–234.